

## CLAIMS

Please amend the claims as follows:

1. (Currently Amended) A method for controlling discontinuous transmissions, comprising ~~the steps of~~:

determining a voice activity level in a digitized audio signal;

generating a control signal based on the level of voice activity detected;

generating active vocoder frames at a predetermined rate in a transmitter if said control signal indicates a first level of speech activity;

generating inactive vocoder frames if said control signal indicates a second level of speech activity; and

generating transition frames if said control signal indicates a transition from said first level to said second level, said transition frames comprising background noise information.

2. (Currently Amended) A method for controlling discontinuous transmissions, comprising ~~the steps of~~:

generating data frames at a receiver;

storing said data frames in a queue;

providing at least one of said data frames from said queue to a decryption module if available in said queue;

providing a state vector to said decryption module, said state vector incremented at a predetermined rate;

generating a codebook from said decryption module, using at least said state vector, said codebook for decrypting at least one of said data frames; and

disabling said state vector when said queue is in an underflow condition.

3. (Original) The method of claim 2, wherein the step of disabling said state vector comprises the steps of:

determining that none of said data frames are available for decryption in said queue; disabling said state vector;

determining that at least one of said data frames is available for decryption in said queue;

enabling said state vector; and

incrementing said state vector by a value of one.

4. (Original) A discontinuous transmission controller, comprising:

a vocoder for generating active vocoder frames from said digitized audio signal at a predetermined output rate if speech is present, for generating inactive vocoder frames during periods of speech inactivity, and for generating transition frames during transitions from speech activity to speech inactivity, said transition frames comprising background noise information.

5. (Currently Amended) The receiver of claim 4 wherein said a state vector is enabled when at least one data frame becomes available for encryption in said queue.

6. (New) A method for controlling discontinuous transmissions, comprising:

determining a speech activity level in a digitized audio signal;

generating a control signal based on the determined speech activity level;

generating active vocoder frames in a transmitter if said control signal indicates active speech activity;

generating no vocoder frame in the transmitter if said control signal indicates inactive speech activity; and

generating transition frames in the transmitter if said control signal indicates a transition between said active speech activity and inactive speech activity, said transition frames comprising comfort information.

7. (New) The method of claim 6, wherein said comfort information includes background noise information.

8. (New) A method for controlling discontinuous transmissions, comprising:

receiving digitized audio signal;

determining a speech activity level in the received digitized audio signal;

generating a control signal based on the determined speech activity level;

generating active vocoder frames in a transmitter if said control signal indicates active speech activity;

generating transition frames in the transmitter if said control signal indicates a transition between said active speech activity and inactive speech activity;

incrementing a state vector for each generated active or transition vocoder frame;

generating no vocoder frame in the transmitter if said control signal indicates inactive speech activity; and

disabling the state vector for each inactive vocoder frame.

Attorney Docket No. 990502

11

9. (New) The method of claim 8, further including encrypting the generated active and transition vocoder frames.

10. (New) A method for controlling discontinuous transmissions, comprising:  
receiving encrypted vocoder frames at a receiver;  
storing said encrypted vocoder frames in a queue;  
providing at least one of said encrypted vocoder frames from said queue to a decryption module if any is available in the queue;  
incrementing a state vector for each encrypted vocoder frame provided to the decryption module, the state vector for user by the decryption module; and  
disabling the state vector if no encrypted vocoder frame is available in the queue.

11. (New) The method of claim 10, further including:  
decrypting the encrypted vocoder frames provided to the decryption module using the associated state vectors; and  
generating comfort information if no encrypted vocoder frame was available in the queue.

12. (New) The method of claim 11, wherein the comfort information includes background noise.

13. (New) The method of claim 11, wherein the comfort information includes at least one recently decrypted vocoder frame.

14. (New) An apparatus for controlling discontinuous transmissions, comprising:  
means for determining a speech activity level in a digitized audio signal;  
means for generating a control signal based on the determined speech activity level;  
means for generating active vocoder frames in a transmitter if said control signal indicates active speech activity;  
means for generating no vocoder frame in the transmitter if said control signal indicates inactive speech activity; and  
means for generating transition frames in the transmitter if said control signal indicates a transition between said active speech activity and inactive speech activity, said transition frames comprising comfort information.

15. (New) The apparatus of claim 14, wherein said comfort information includes background noise information.

16. (New) An apparatus for controlling discontinuous transmissions, comprising:  
means for receiving digitized audio signal;  
means for determining a speech activity level in the received digitized audio signal;  
means for generating a control signal based on the determined speech activity level;  
means for generating active vocoder frames in a transmitter if said control signal indicates active speech activity;  
means for generating transition frames in the transmitter if said control signal indicates a transition between said active speech activity and inactive speech activity;  
means for incrementing a state vector for each generated active or transition vocoder frame;  
means for generating no vocoder frame in the transmitter if said control signal indicates inactive speech activity; and  
means for disabling the state vector for each inactive vocoder frame.

17. (New) The apparatus of claim 8, further including encrypting the generated active and transition vocoder frames.

18. (New) An apparatus for controlling discontinuous transmissions, comprising:  
means for receiving encrypted vocoder frames at a receiver;  
means for storing said encrypted vocoder frames in a queue;  
means for providing at least one of said encrypted vocoder frames from said queue to a decryption module if any is available in the queue;  
means for incrementing a state vector for each encrypted vocoder frame provided to the decryption module, the state vector for user by the decryption module; and  
means for disabling the state vector if no encrypted vocoder frame is available in the queue.

19. (New) The apparatus of claim 18, further including:  
means for decrypting the encrypted vocoder frames provided to the decryption module using the associated state vectors; and  
means for generating comfort information if no encrypted vocoder frame was available in the queue.

20. (New) The apparatus of claim 19, wherein the comfort information includes background noise.

21. (New) The apparatus of claim 19, wherein the comfort information includes at least one recently decrypted vocoder frame.

22. (New) A computer-readable medium embodying means for implementing a method for controlling discontinuous transmissions, the method comprising:

determining a speech activity level in a digitized audio signal;

generating a control signal based on the determined speech activity level;

generating active vocoder frames in a transmitter if said control signal indicates active speech activity;

generating no vocoder frame in the transmitter if said control signal indicates inactive speech activity; and

generating transition frames in the transmitter if said control signal indicates a transition between said active speech activity and inactive speech activity, said transition frames comprising comfort information.

23. (New) The computer-readable medium of claim 22, wherein said comfort information includes background noise information.

24. (New) A computer-readable medium embodying means for implementing a method for controlling discontinuous transmissions, the method comprising:

receiving digitized audio signal;

determining a speech activity level in the received digitized audio signal;

generating a control signal based on the determined speech activity level;

generating active vocoder frames in a transmitter if said control signal indicates active speech activity;

generating transition frames in the transmitter if said control signal indicates a transition between said active speech activity and inactive speech activity;

incrementing a state vector for each generated active or transition vocoder frame;

generating no vocoder frame in the transmitter if said control signal indicates inactive speech activity; and

disabling the state vector for each inactive vocoder frame.

Attorney Docket No. 990502

14

25. (New) The computer-readable medium of claim 24, the method further including encrypting the generated active and transition vocoder frames.

26. (New) A computer-readable medium embodying means for implementing a method for controlling discontinuous transmissions, the method comprising:

receiving encrypted vocoder frames at a receiver;

storing said encrypted vocoder frames in a queue;

providing at least one of said encrypted vocoder frames from said queue to a decryption module if any is available in the queue;

incrementing a state vector for each encrypted vocoder frame provided to the decryption module, the state vector for user by the decryption module; and

disabling the state vector if no encrypted vocoder frame is available in the queue.

27. (New) The computer-readable medium of claim 26, the method further including:

decrypting the encrypted vocoder frames provided to the decryption module using the associated state vectors; and

generating comfort information if no encrypted vocoder frame was available in the queue.

28. (New) The computer-readable medium of claim 27, wherein the comfort information includes background noise.

29. (New) The computer-readable medium of claim 27, wherein the comfort information includes at least one recently decrypted vocoder frame.